

In the Claims

1. - 47. (Cancelled)

48. (New) A method of depositing by flame or plasma spraying at atmospheric pressure a layer onto a substrate, the layer having a thickness of at least 5 mm, the coating comprising metal oxides, the method including the steps of:

depositing an additional noble metal with the coating to increase thermal conductivity of the coating, and

during deposition of the coating, cooling the substrate so that the solidified coating thereon has a temperature between 25° and 150°C.

49. (New) The method of claim 48, wherein the temperature of the solidified coating during deposition is held at between 50 and 100°C.

50. (New) The method according to claim 48, wherein the noble metal is silver.

51. (New) The method according to claim 50, wherein silver containing material is included in material to be sprayed to result in up to 30% silver in the coating as deposited. #2 11/17/03 OK

52. (New) The method according to claim 48, wherein the spraying step includes spraying a material through a spraying head, the material being in the form of one of a powder, a slurry or a solution.

53. (New) The method according to claim 48, wherein the cooling is with a cryogenic liquid.

54. (New) The method according to claim 48, wherein the coating comprises a superconductive precursor and at least 10% of the layer is in a superconductive phase as deposited.

55. (New) The method according to claim 50 wherein the layer has a thickness of greater than 8mm.

LB) produce by process

56. (New) A composite comprising: a substrate and a coating obtained by the method of claim 48, the thickness of the coating being at least 5 mm, the coating comprising metal oxides and the deposited coating comprising the addition of a noble metal to increase thermal conductivity of the coating.